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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,081	12/30/2005	Henrik Balle	891.012171-US (PAR)	7461
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EXAMINER				
TORRES, MARCOS L				
ART UNIT		PAPER NUMBER		
2617				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/530,081

Applicant(s)

BALLE ET AL.

Examiner

MARCOS L. TORRES

Art Unit

2617

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 38-44, 46-52, 92-94 and 96-98 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 38-44, 46-52, 92-94 and 96-98 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.
2. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). As previously stated Ali discloses the rotation of the display through all four orthogonal rotation (see par. 0070) as agreed by the applicant and examiner, but unfortunately the drawings only show two positions. If we take for example fig. 8B of Ali the first two arrows [control content] of item 820 pointing upward and downward and rotate the device 180 degrees, now would be each arrow would be pointing to one direction but the button would do the opposite that the label show. It is clear that would be unacceptable for a user much less for one of the ordinary skills in the art at the time of the invention and something should be done. To fix the problem one of the ordinary skills would, interchange the control content; interchange the functions of the buttons or a combination. Also, the examiner previously pointed out that if there is an order of the

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input keys it would be common sense to keep the order, for the simple purpose of avoiding confusing the user and avoiding incorrect input. But as stated in the prior office action and pointed by the applicant, Ali does not explicitly disclose to interchange the first control content and the second control content. In the secondary reference Sewrup faces this problem when a device is rotated, for example the down key is no longer the down key. And his solution as described in paragraphs 0026 and 0027 is to:

Moreover, the layout or template 200 shows the values or functions that are represented by the keys 112 when the mobile communication device 100 is operating in the computing and networking mode, that is, when the cover lid 108 is in the open position. Such an arrangement not only helps the user to reach the desired key, but a set of values or functions more in line with the intuitive expectations of the user may also be assigned to the keys 112, as shown in the layout or template 200.

[0027] In this exemplary embodiment, the positions of the keys 112 have been rotated by 180 degrees relative to the position of the keys 112 when the cover lid 108 is in the closed position (see FIG. 1), based on the assigned values. Specifically, the Up and the Down navigation keys have been swapped, as well as the first and fourth rows, and second and third rows of the numerical keys. The Left and Right navigation keys, and the Y and N keys retain their original representation

Thereby, Sewrup teach that it is desirable to swap the functions and control content; and to maintain the order of the input so it would be intuitive to the user.

3. Regarding applicant arguments directed to new limitations such as the control content is on the display, please see the respective claims.

4. Regarding applicant arguments directed to fig. 1-3, the function and control of the keys is changed as shown in par. 0027 and in fig. 7. Additionally, as explained by the applicant the opening of the device will invert the device which is having the same problem as a rotating the device. Thereby a combination of Ali with Sewrup, it would be would maintain the order of the programmable keys as shown by Sewrup so it would be intuitive to the user and this requires maintaining the order of the control content and its functions in the four possible orientations [0, 90, 180, 270 degrees].
5. The rest of the arguments they fall for the same reasons as shown in paragraphs 2-4 above.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 38-44, 46-52, 92-94 and 96-98 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ali US 20030197679A1 in view of Swerup 20020177464.

As to claim 38, Ali discloses a device (see fig. 5; par. 0053) (see fig. 8b, item 811,813,815,817; par. 0067), comprising: first input key fixedly positioned adjacent a first portion of the display and a second input key fixedly positioned adjacent a second portion of the display and fixedly positioned adjacent the first input key (see fig. 8a, items 870; par. 0069); a display being configured to display information content with a first orientation, first control content in the first position of the display, adjacent the first input key, indicating that the first input key has a first function, and second control content in the second portion of the display, adjacent the second input key, indicating that the second input key has a second function (see fig. 8a, 8b, item 740, 820); and a processor, for controlling the display (see par. 0060), configured to vary in the display, the first orientation of the information content to all four orthogonal orientations (see fig.

8b and 8c, par. 0066-0070). Ali does not specifically disclose to interchange the first control content and the second control content, such that the first control is adjacent the second input key and the second control content is adjacent the first input key, because Ali only shows tilting the device to one side in the drawings. However, note in the figures above that Ali desires to maintain the order of the input keys, this is most likely because it would be troublesome to the user if he have to learn a new configuration layout to each mode. In another analogous art, Swerup discloses to interchange the first function and second function, such that second input key has the first function and vice versa in response to the change of orientation of the device (see par. 0027, 0028, 0037). When added the teachings of Swerup to Ali, the programmable buttons of Ali will interchange the function and content to maintain the order of the programmable keys so it would be intuitive to the user in all orientations. Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to interchange the functions to maintain the same order so if user is used to a button in certain place maintaining the correspondence when the device is rotated, thereby providing the user an easy to learn user interface regardless of the position of the device.

As to claim 39, Ali discloses a device further comprising a user input device, wherein the processor is configured to vary in the display the user-determined orientation of the information content, in response to input from the user input device (see fig. 8b and 8c, par. 0060-0061, 0066-0070).

As to claim 40, Ali discloses a device wherein the functionality of the user input device is controlled by the processor (see par. 0060).

As to claim 41, Ali discloses a device wherein the processor is configured to vary in the display the user-determined orientation of the information content between four predetermined orientations (portrait or landscape, see fig. 8b, 8c; par. 0066, 0070).

As to claim 42, Ali discloses a mobile device wherein the processor is configured to vary in the display the user determined orientation of the information content by successive increments of 90 degrees rotation about a first origin in the display (portrait or landscape, see fig. 8b, 8c; par. 0066, 0070).

As to claim 43, Ali discloses a mobile device wherein the processor is configured to vary in the display the user-determined orientation of the information content while it is displayed (see par. 0060).

As to claim 44, Ali discloses a device wherein the first and second control content for the input key varies in the display as the function of the first and second input key is varied by the processor (see par. 0068,0060).

As to claim 46, Ali discloses a device wherein the first and second control content has a fixed orientation with respect to the mobile device (see fig. 8b, 8c).

As to claim 47, Ali discloses a mobile device wherein the processor is configured to rotate in the display the information content about a first origin and simultaneously rotate the first and second control content about a second different origin, by ninety degrees (see fig. 8b, 8c).

As to claim 48, Ali discloses a mobile device wherein the processor is configured to simultaneously rotate in the display the information content and the first and second control content, in response to input from the user input device (see par. 0066).

As to claim 49, Ali discloses a device wherein the first origin and the second origin are fixed (see fig. 8b, 8c).

As to claim 50-52 and 97, they are the corresponding method claims of device claims 38-39 and 96. Therefore, claims 50-52 and 97 are rejected for the same reasons as shown above.

As to claim 92-94 and 98, they are the corresponding computer memory claims of device claims 38-39 and 96. Therefore, claims 92-94 and 98 are rejected for the same reasons as shown above.

As to claim 96, Ali discloses a device wherein the processor is further configured to vary in the display the orientation of the information content to a third orientation, to not interchange the first function and the second function; and to not interchange the first control content and second control content and display the control content in a first and second section of the display (see fig. 8b and 8c, par. 0066-0070). Ali does not specifically disclose that the second input key has the first function and the first control content is adjacent the second input key and such that the first input key has the second function and the second control content is adjacent the first input key. In other words, this situation occurs when the functions were already rotated. In another analogous art, Swerup discloses to interchange the first function and second function, such that second input key has the first function and vice versa (see par. 0027, 0028, 0037). When added the teachings of Swerup to Ali, the programmable buttons of Ali will interchange the function and content to maintain the order of the programmable keys so it would be intuitive to the user in all orientations. Therefore, it would have been obvious

to one of the ordinary skill in the art at the time of the invention to interchange the functions when the device is rotated 180 degrees to maintain the same order so if user is used to a button in certain place maintaining the correspondence when the device is rotated, thereby providing the user an easy to learn user interface regardless of the position of the device; and to repeat the steps of fig 8b and 8c in the subsequent position change of 90 degrees. Also, it is noted that if the position change in the reverse direction, it would be obvious to reverse the steps because it would bring the same predictable result of maintaining correspondence.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any response to this Office Action should be mailed to:

U.S. Patent and Trademark Office
Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Or faxed to:

571-273-8300

for formal communication intended for entry, informal communication or draft communication; in the case of informal or draft communication, please label "PROPOSED" or "DRAFT"

Hand delivered responses should be brought to:

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARCOS L. TORRES whose telephone number is (571)272-7926. The examiner can normally be reached on 9:30 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-252-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George Eng/
Supervisory Patent Examiner, Art Unit 2617

/Marcos L Torres/
Examiner, Art Unit 2617